

Product datasheet for **RC200753**

RRP4 (EXOSC2) (NM_014285) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RRP4 (EXOSC2) (NM_014285) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RRP4
Synonyms:	hRrp4p; p7; RRP4; Rrp4p; SHRF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200753 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGATGGAGATGAGGCTTCCAGTGGCTCGCAAGCCTCTTAGCGAGAGACTGGGCCGCGACACTAAGA
AACATCTAGTGGTGCCGGGGGATACAATCACTACGGACACAGGATTCATGCGGGCCATGGAACGTATAT
GGGAGAAGAGAAGCTCATTGCATCTGTTGCTGGCTCTGTGGAGAGAGTAAACAAGTTGATCTGTGTGAAA
GCTTTGAAAACCAGATACATTGGTGAAGTAGGAGACATCGTAGTGGACGAATCACAGAGGTTCAACAGA
AGAGGTGGAAGGTGGAGACCAACTCCAGGCTGGATTCGGTCTTGCTGCTCTCGTCCATGAACCTTCTGG
AGGAGAGCTGAGGAGAAGATCTGCAGAAGATGAGCTTGAATGAGAGGTTTCTTACAGGAAGGGGACCTT
ATCAGTGTGAGGTCCAGGCAGTGTCTCTGACGGAGCTGTCTTTGCACACGAGGAGCCTGAAATATG
GAAAACACTAGGTACAGGGGTTTTGGTCCAGGTTTCCCCCTCCCTGGTGAACCGGCAGAAGACCCACTTTCA
TGATTTGCCATGTGGTGCCTCAGTGATTCTCGGTAACAACGGCTTCATCTGGATTTACCCAACACCTGAG
CACAAAGAAGAGGAAGCAGGGGGCTTATTGCAAACCTGGAGCCTGTCTCTTTGCTGATCGAGAGGTGA
TATCCCGCTTCGGAAGTGCATCATCTCGCTGGTAACTCAGAGGATGATGCTGTATGATACCAGCATCCT
GTACTGCTATGAAGCATCCCTTCCACATCAGATCAAAGACATCTTAAAGCCAGAAATAATGGAGGAGATT
GTGATGAAACACGCCAGAGGCTTTTGAACAGGAGGGA

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200753 protein sequence
Red=Cloning site Green=Tags(s)

MAMEMRLPVARKPLSERLGRDTKKHLVVPGDTITTDGFMRGHGTYMGEKLIASVAGSVERVNKLCVK
 ALKTRYIGEVDIVVGRITEVQQRWVETNSRLDSVLLSSMNLPGGELRRRSAEDELAMRGFLQEGDL
 ISAEVQAVFSDGAVSLHTRSLKYGKLGQGVLVQVSPSLVKRQKTHFDLPCGASVILGNNGFIWIYPTPE
 HKEEEEAGGFIANLEPVSLADREVISRLRNCIISLVTQRMMLYDTSILYCYEASLPHQIKDILKPEIMEEI
 VMETRQRLLQEG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6384_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014285

ORF Size: 879 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_014285.7](#)

RefSeq Size: 2034 bp

RefSeq ORF: 882 bp

Locus ID: 23404

UniProt ID: [Q13868](#)

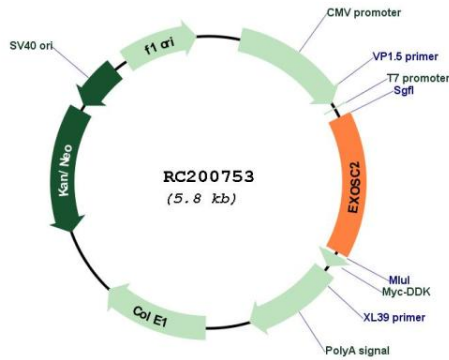
Cytogenetics: 9q34.12

Protein Pathways: RNA degradation

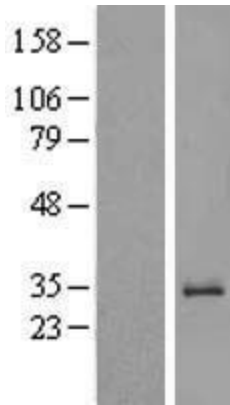
MW: 32.8 kDa

Gene Summary: Non-catalytic component of the RNA exosome complex which has 3'->5' exoribonuclease activity and participates in a multitude of cellular RNA processing and degradation events. In the nucleus, the RNA exosome complex is involved in proper maturation of stable RNA species such as rRNA, snRNA and snoRNA, in the elimination of RNA processing by-products and non-coding 'pervasive' transcripts, such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and of mRNAs with processing defects, thereby limiting or excluding their export to the cytoplasm. The RNA exosome may be involved in Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by targeting AICDA deamination activity to transcribed dsDNA substrates. In the cytoplasm, the RNA exosome complex is involved in general mRNA turnover and specifically degrades inherently unstable mRNAs containing AU-rich elements (AREs) within their 3' untranslated regions, and in RNA surveillance pathways, preventing translation of aberrant mRNAs. It seems to be involved in degradation of histone mRNA. The catalytic inactive RNA exosome core complex of 9 subunits (Exo-9) is proposed to play a pivotal role in the binding and presentation of RNA for ribonucleolysis, and to serve as a scaffold for the association with catalytic subunits and accessory proteins or complexes. EXOSC2 as peripheral part of the Exo-9 complex stabilizes the hexameric ring of RNase PH-domain subunits through contacts with EXOSC4 and EXOSC7. [UniProtKB/Swiss-Prot Function]

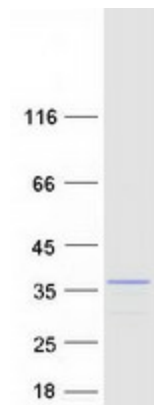
Product images:



Circular map for RC200753



Western blot validation of overexpression lysate (Cat# [LY415389]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200753 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EXOSC2 protein (Cat# [TP300753]). The protein was produced from HEK293T cells transfected with EXOSC2 cDNA clone (Cat# RC200753) using MegaTran 2.0 (Cat# [TT210002]).